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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,616	02/28/2002	Duane Detwiler	105450-00009	1622

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WASHINGTON, DC 20036

EXAMINER
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GUTMAN, HILARY L

ART UNIT	PAPER NUMBER
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3612

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/084,616

**Applicant(s)**

DETWILER ET AL.

**Examiner**

Hilary Gutman

**Art Unit**

3612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: marked-up copy of Fig. 3 of DE 2715 Reference

Art Unit: 3612

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. A new rejection is set forth below.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 6, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE '715 in view of Hartel et al.

DE 29622715 discloses an impact reduction vehicle bumper system (Figure 3) comprising: at least two brackets (see marked-up copy of Figure 3, hereto attached); a beam 2

Art Unit: 3612

attached to the at least two brackets; at least two frame rail extensions (marked-up copy Figure 3) coupled to the at least two brackets.

DE '715 lacks at least two frame rails and further lacks the brackets being coupled respectively to the at least two frame rails.

Hartel et al. teach an impact reduction vehicle bumper system comprising: at least two frame rails 3; at least two brackets 1, 2 coupled respectively to the at least two frame rails; a beam 7 attached to the at least two brackets; a plate member 6 attached to the beam; and at least two frame rail extensions 22 coupled to the at least two brackets.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have coupled the brackets of DE '715 to at least two frame rails as taught by Hartel et al. in order to mount the bumper system of DE '715 upon a vehicle.

DE '715, as modified, now discloses each bracket of the at least two brackets being disposed between and directly connected to a first longitudinal end face of a corresponding frame rail of the at least two frame rails and either one of a first longitudinal end face and a second longitudinal end face of the beam.

Additionally, the first and second longitudinal end faces of the beam are parallel relative to a longitudinal axis of each frame rail extension and the first longitudinal end face of each frame is orthogonal relative to the longitudinal axis of each frame rail.

DE '715, as modified, lacks a plate member attached to the beam.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a plate member as taught by Hartel et al. attached to the beam 2 of DE '715 in order to provide additional impact reduction to the vehicle.

Art Unit: 3612

With regard to claim 6, the plate member of DE '715, as twice modified, has a generally U-shaped cross-section.

For claims 11 and 12, it is believed that if the bumper system as recited exhibits the adequate peak force ( $<7.5$  kN) and the adequate peak moment ( $<510$  Nm) then it would follow that other prior art bumper systems having the same features would also exhibit there characteristic results.

With regard to claim 13, the impact reduction system can apparently be a vehicle front bumper.

With regard to claim 14, the vehicle front bumper is mountable on a vehicle.

4. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE '715, as twice modified, as applied to claim 1 above and further in view of the well known prior art.

DE '715, as twice modified, lacks the plate member, beam and brackets, and frame rail extensions being made of steel.

Composing bumper members of steel is well known in the prior art (the examiner takes official notice of this fact) since steel provides high strength and collision-energy absorption, improved energy transfer characteristics, excellent durability and corrosion resistance, as well as having good formability and being lightweight.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the components of DE '715, as twice modified, out of steel as taught by the well known prior art in order to provide the bumper system of DE '715, as twice modified, with high strength and good shock absorption.

Art Unit: 3612

With regard to claim 5, the brackets are side brackets.

DE '715, as thrice modified, lacks the plate member being welded to the beam.

It should be noted that the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113).

11. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE '715, as twice modified, as applied to claim 6 above and further in view of Goupy.

DE '715, as twice modified, lacks a plate member extending over a front portion of the beam having a multi-step U-shaped cross-section and more specifically a three-step U-shaped cross-section.

Goupy teaches an impact reduction vehicle bumper system for a vehicle for reducing the force upon impact with an object comprising (Figures 1-2 and 9): a beam 2 and a plate member 1 attached to the beam. The plate member has a frontal face 21 and upper and lower borders 22. The plate member also has a multi-step U-shaped cross-section and more specifically a three-step U-shaped cross-section (Figure 9). The purpose of this is to create a "ripple-bearing" which provides increased mechanical resistance characteristics and maximum bending moments to the bumper system when subjected to stress.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a plate member with a three-step (or multi-step) U-shaped cross-section as taught by Goupy upon the beam of DE '715, as twice modified, in order to increase

Art Unit: 3612

the energy absorbing characteristics of the bumper system and in order to increase mechanical resistance and maximize the bending moments of the bumper system when subjected to stress.

***Allowable Subject Matter***

5. Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the primary reason for the indication of allowable subject matter for the claims in this case is the inclusion of the specific frame rail extensions including upper, lower, and inner extensions included in claim 9 in combination with the other elements recited which is not found in the prior art or record.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hilary Gutman whose telephone number is 703-305-0496.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on 703-308-3102. The fax phone number for the organization where this application or proceeding is assigned is 703-308-3297.

Art Unit: 3612

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1134.

9. **Any response to this action should be mailed to:**

Assistant Commissioner for Patents

Washington, D.C. 20231

**or faxed to:**

(703) 872-9326, (for formal communications intended for entry)

**or:**

(703) 746-3515, (for informal or draft communications, please clearly label

“PROPOSED” or “DRAFT”).

*Handwritten:*  
Hilary Ant  
Humbert Gutierrez  
3612  
2/26/07



